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4	Power	3-STATE VDD_GND, COMMAND TARGET POWER, VOLTAGE REFERENCES, POWER MEASUREMENT
5	CPU PICKIT	PIC24FJ256GB106, SERIAL EEPROM
6	CONNECTOR	Switching system
7	POWER PICEBS2	LP3965EM-33
8	CPU PICEBS2	PIC18F87K22, CONNECTOR PROGRAMATION PICEBS2
9	TOUCH DISPLAY	DRIVER: STMPE811, LCD: LCD-NHD-1.8-128160EF
10	I/O	BUTTON: INT0,INT1, KBI0. POTENTIOMETER. Olimex UEXT, CONNECTORS
11	INTERFACE	LED BAR. RS232 DRIVER: MAX3221CAE. MODULE CAN: MCP2515, SN65HVD231DR.

PICEBS2	DES	28.05.2015 SNGB
Microchip dev. board	REV	V1.2
HAUTE ECOLE VALAISANNE	1/11	{Path} PICEBS2_V1.2.sch

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Revision history

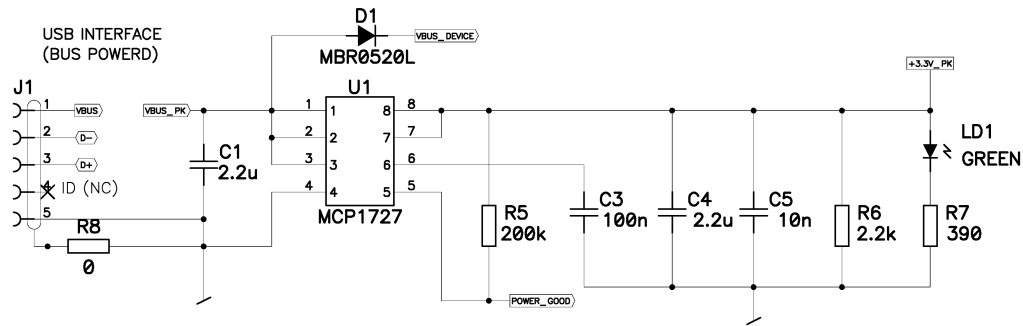
Revision	Major changes
1.0	First prototype board
1.1	Never build
1.2	First serie board

Build info

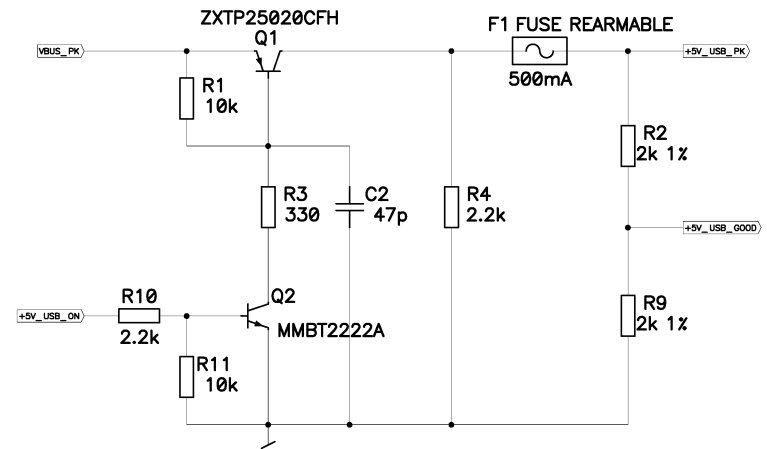
Resistor tolerance: 1% unless otherwise noted

PICEBS2	DES	28.05.2015 SNGB
Microchip dev. board	REV	V1.2
HAUTE ECOLE VALAISANNE	2/11	{Path} PICEBS2_V1.2.sch

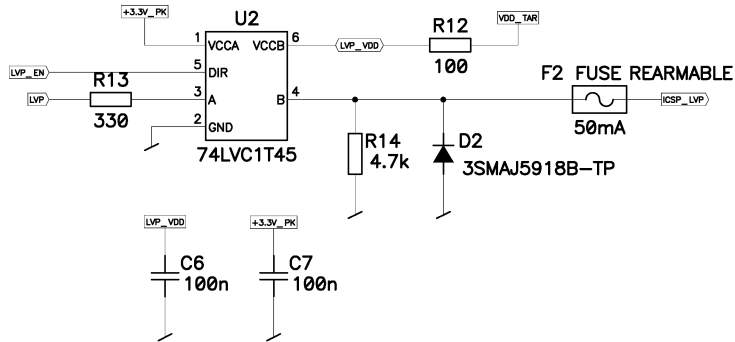
DRIVER CHIPSET POWER



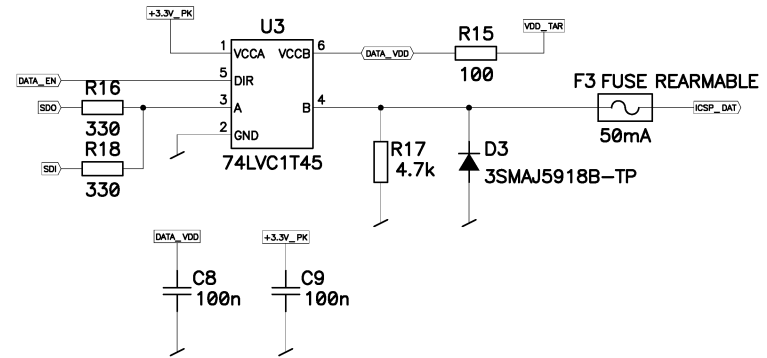
+5V_USB COMMAND



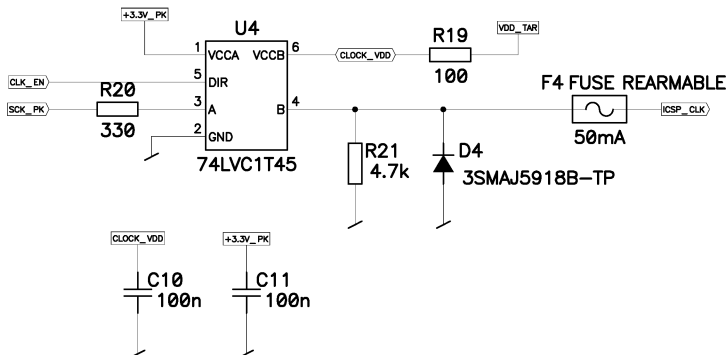
3-STATE FOR LVP



3-STATE FOR DAT

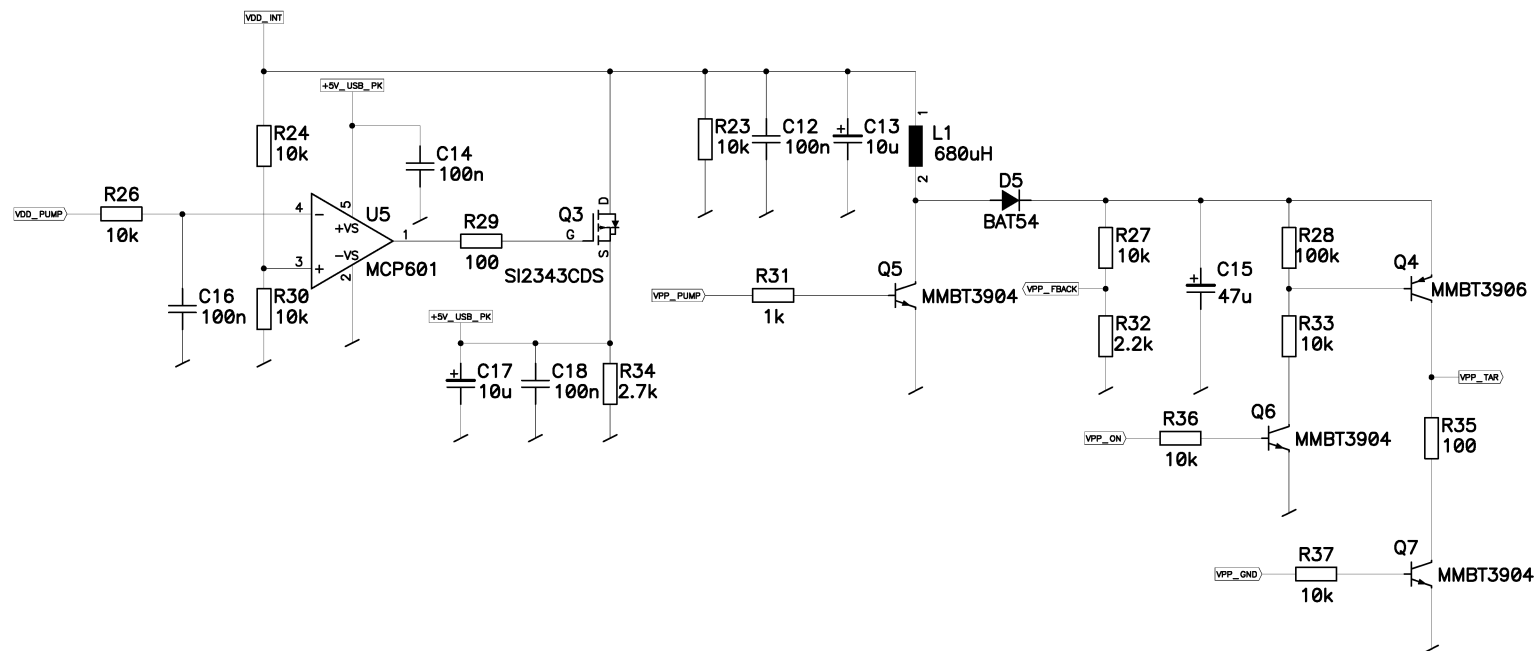


3-STATE FOR CLK

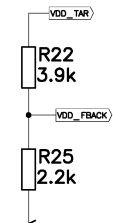


PICEBS2	DES	28.05.2015	SNGB
Microchip dev. board	REV	V1.2	
HAUTE ECOLE VALAISANNE	3/11	{Path} PICEBS2_V1.2.sch	

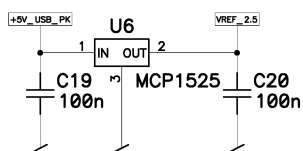
COMMAND TARGET POWER



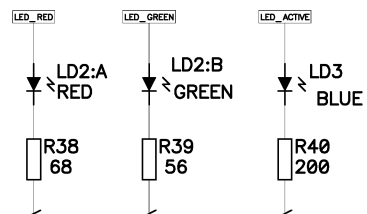
POWER MESURE



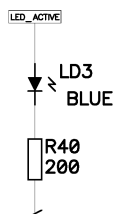
VOLTAGE REFERENCES



STATUS

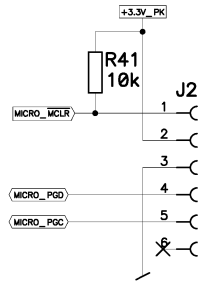


ACTIVE

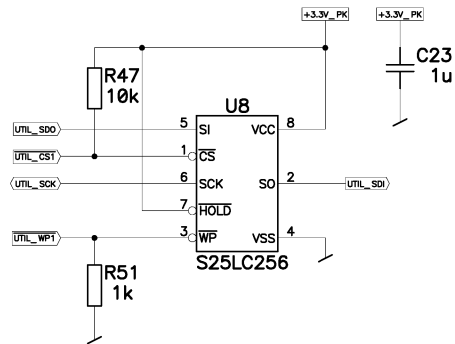


PICEBS2	DES	28.05.2015 SNGB
Microchip dev. board	REV	V1.2
HAUTE ECOLE VALAISANNE	4/11	{Path} PICEBS2_V1.2.sch

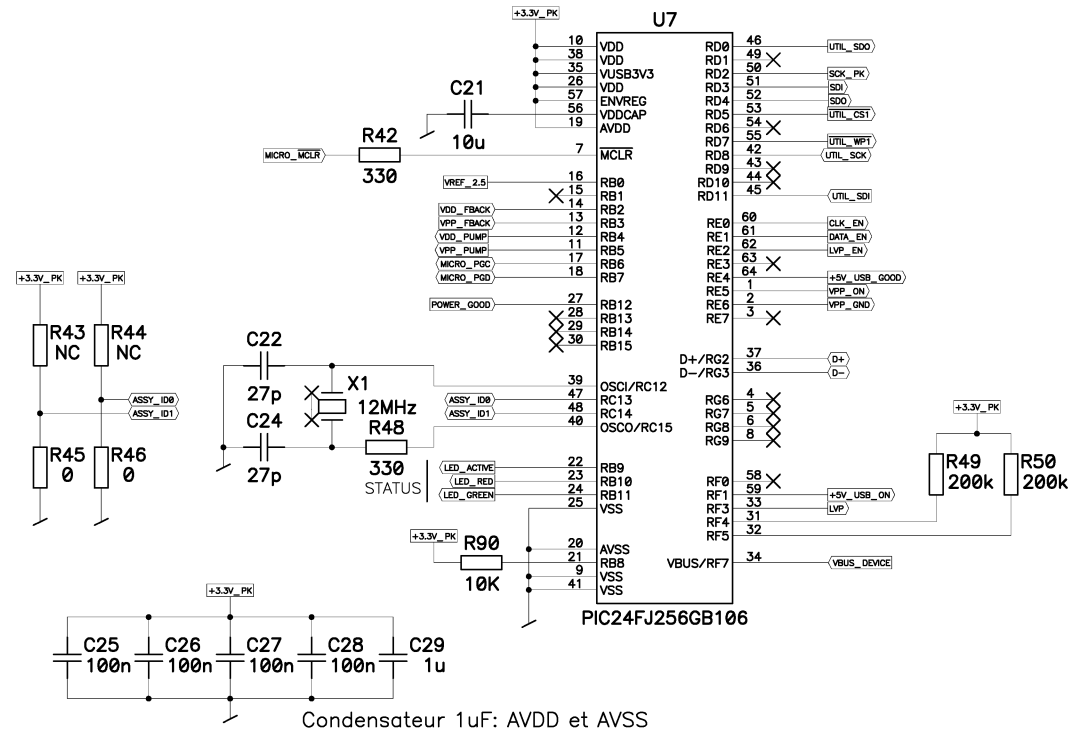
PROGAMMATION PICKIT



SERIAL EEPROM



PIC24FJ256GB106



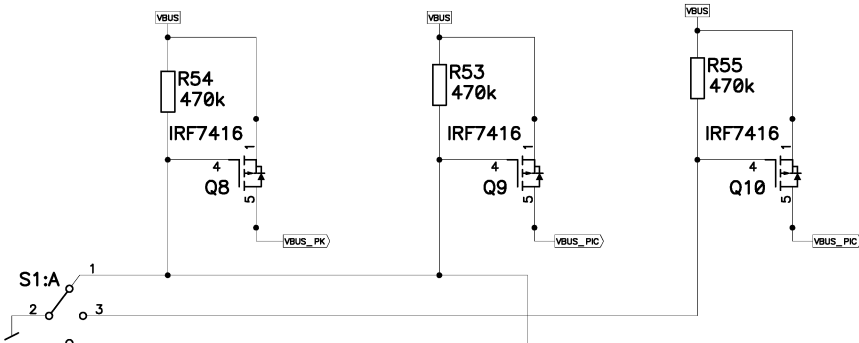
Condensateur 1uF: AVDD et AVSS

PICEBS2	DES	28.05.2015 SNGB
Microchip dev. board	REV	V1.2
HAUTE ECOLE VALAISANNE	5/11	{Path} PICEBS2_V1.2.sch

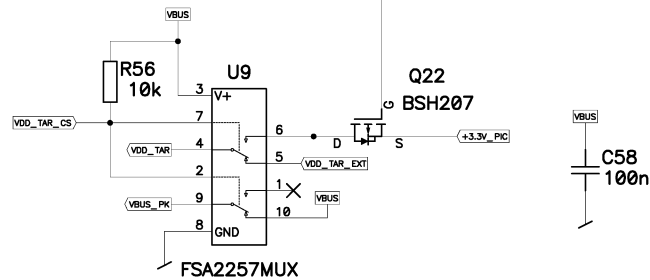
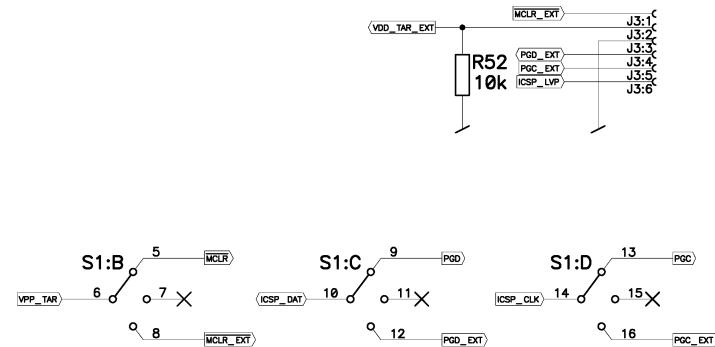
Switch positions

Position	Remark
1	DEBUGGER PICEBS2: PICEBS2 is enable and PICKit3 is enable
2	PICEBS2 is enable and PICKit3 is disable
3	Programming target external

Switch positions



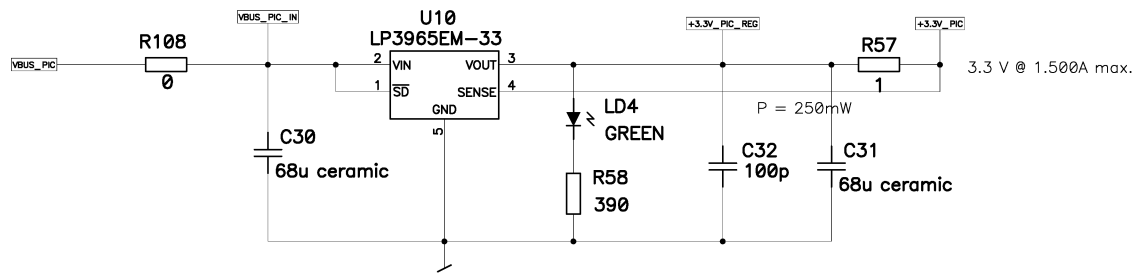
TARGET EXTERNAL CONNECTOR



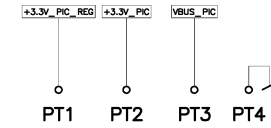
Switch Current max: 200mA

PICEBS2	DES	28.05.2015 SNGB
Microchip dev. board	REV	V1.2
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Alimentation PICEBS

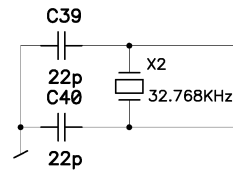
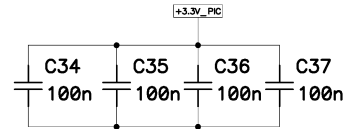
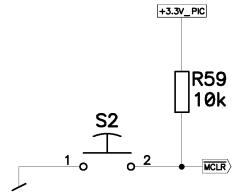


POINTS TEST

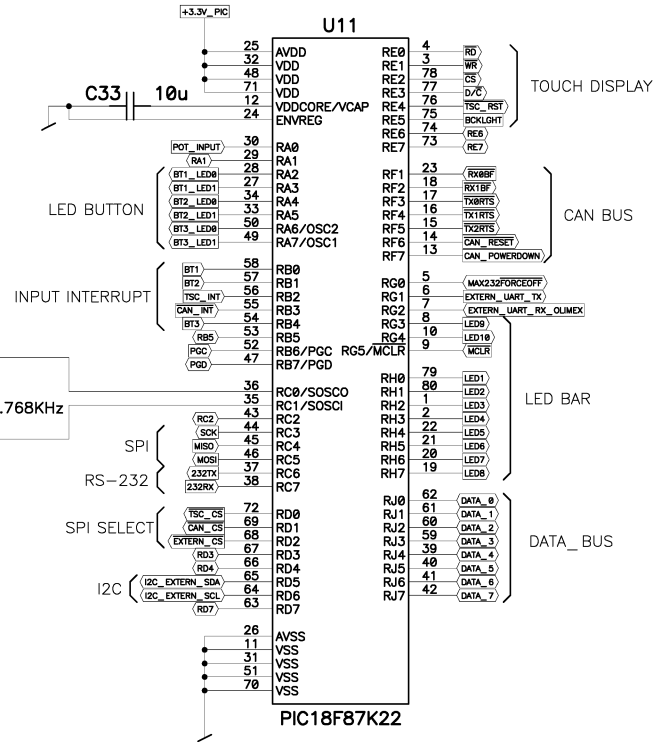


PICEBS2	DES	28.05.2015	SNGB
Microchip dev. board	REV	V1.2	POWER PICEBS2
HAUTE ECOLE VALAISANNE	7/11	{Path}	PICEBS2_V1.2.sch

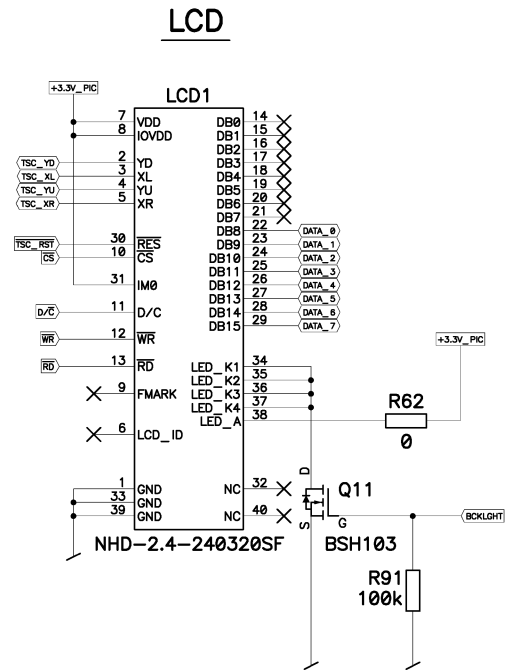
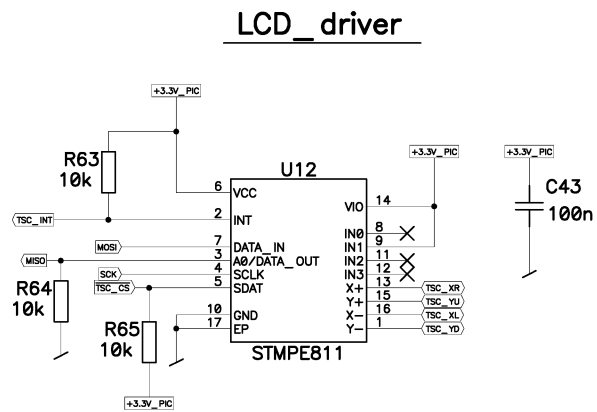
RESET BUTTON



PIC18F87K22



PICEBS2	DES	28.05.2015 SNGB
Microchip dev. board	REV	V1.2
HAUTE ECOLE VALAISANNE	8/11	{Path} PICEBS2_V1.2.sch

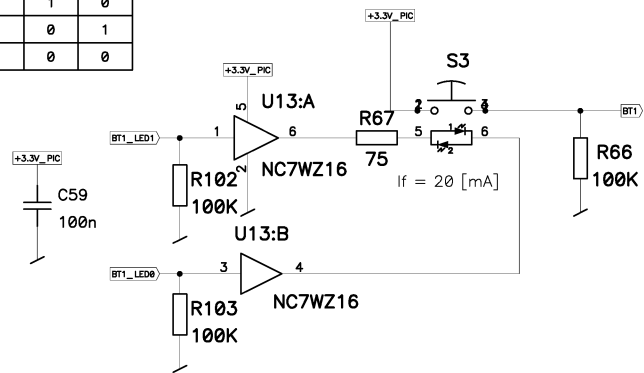


BACKLIGHT SUPPLY VOLTAGE: 3.2 V
 BACKLIGHT SUPPLY CURRENT: 30 mA

PICEBS2	DES	28.05.2015 SNGB
Microchip dev. board	REV	V1.2
HAUTE ECOLE VALAISANNE	9/11	{Path} PICEBS2_V1.2.sch

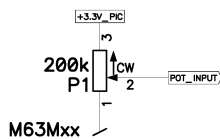
BT1_LED0	BT1_LED1	LED1	LED2
0	0	0	0
0	1	1	0
1	0	0	1
1	1	0	0

BUTTON INT0

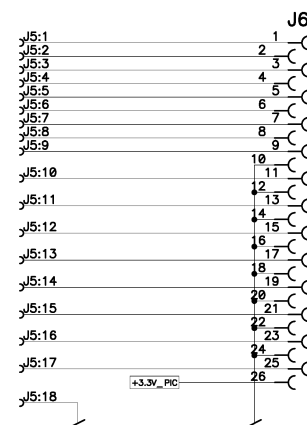


Potentiometer

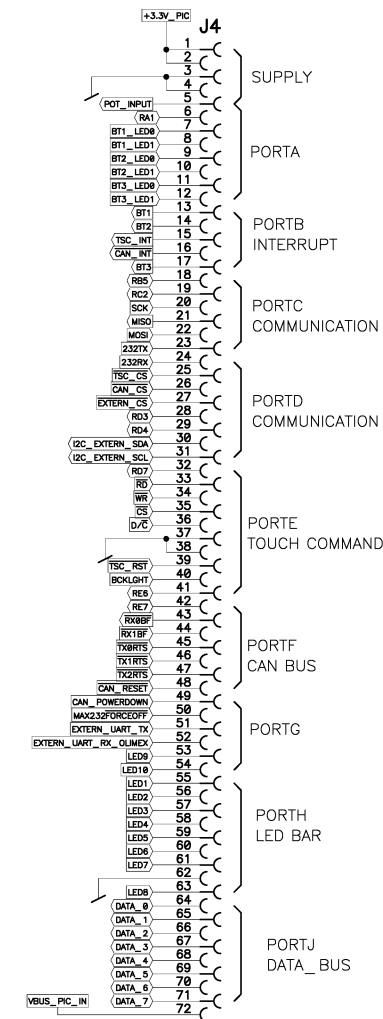
pot value is not significant between 10k to 470k



26 pin I/O standard

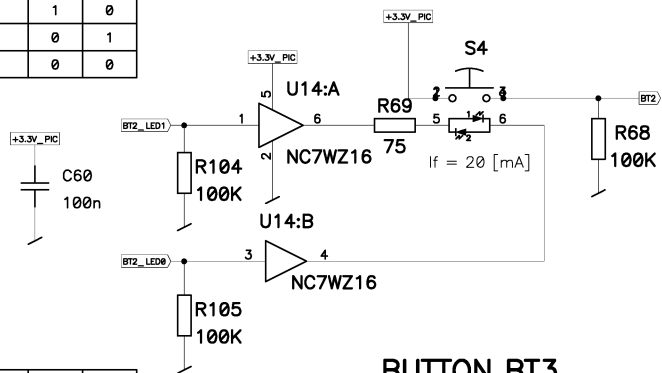


Hes-so//Extension

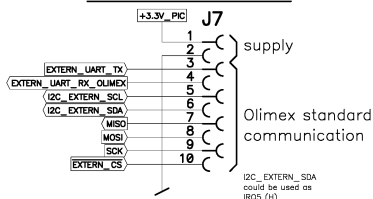


BT2_LED0	BT2_LED1	LED1	LED2
0	0	0	0
0	1	1	0
1	0	0	1
1	1	0	0

BUTTON INT1

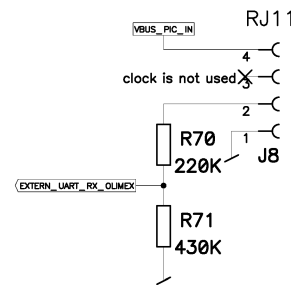


Olimex UEXT



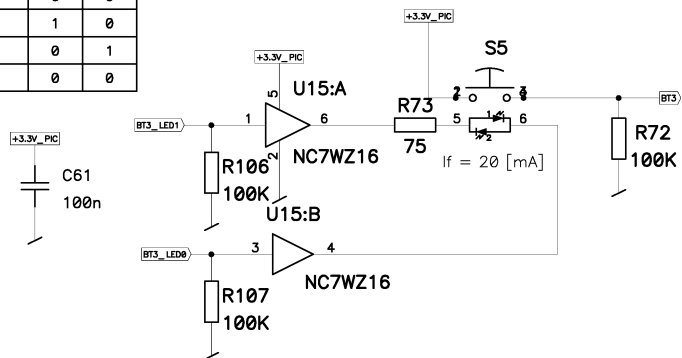
Keyboard (PS2)

Ascom KB speed to be defined ... normally: 11.36 kBds



BT3_LED0	BT3_LED1	LED1	LED2
0	0	0	0
0	1	1	0
1	0	0	1
1	1	0	0

BUTTON BT3

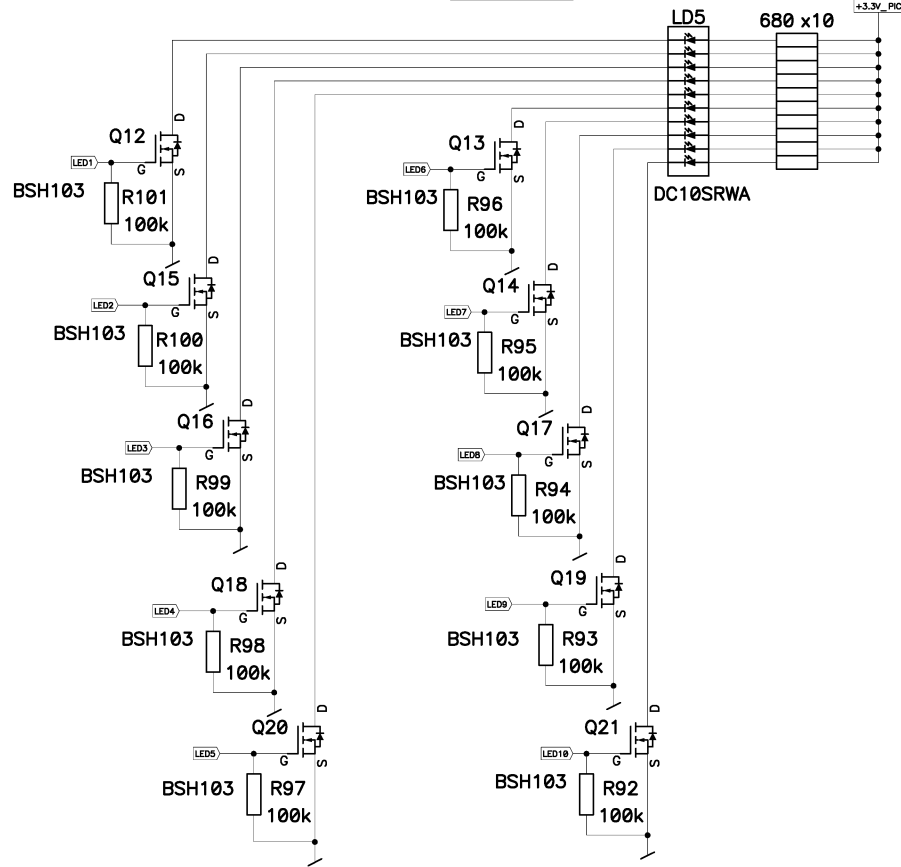


PICEBS2
Microchip dev. board
HAUTE ECOLE VALAISANNE

I/O

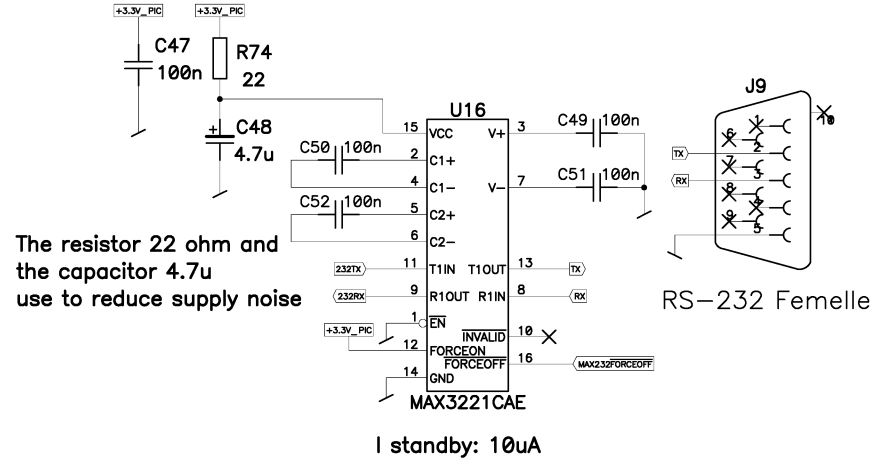
DES	28.05.2015 SNGB
REV	V1.2
10/11	{Path} PICEBS2_V1.2.sch

LED BAR

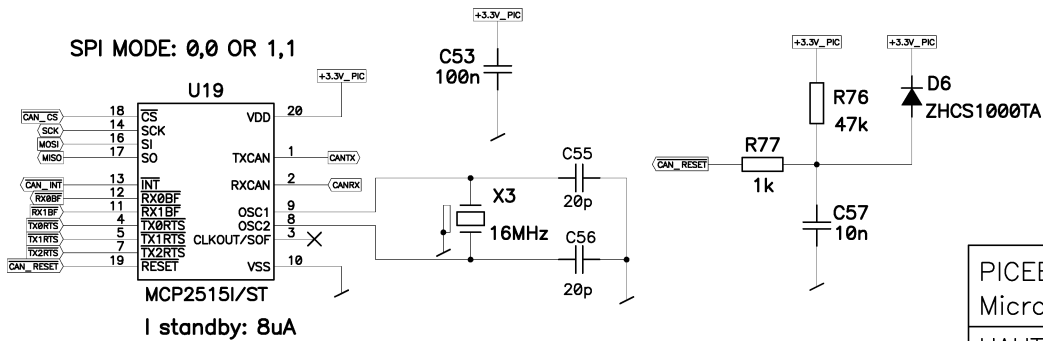


RS-232 (DCE)

connector acts as a PC connector

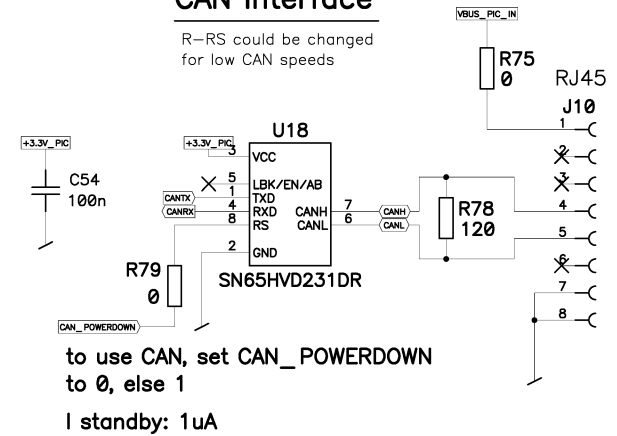


CAN Bus



CAN interface

R-RS could be changed for low CAN speeds



PICEBS2

Microchip dev. board

HAUTE ECOLE VALAISANNE

INTERFACE

DES

28.05.2015 SNGB

REV

V1.2

11/11

{Path} PICEBS2_V1.2.sch